

## **REMARKS**

### **I. General**

Claims 1-28 are pending in the application. Claims 1, 2, 5-9, 12, 14, 16, 17, 21-23, 26 and 27 stand rejected under 35 U.S.C. § 102. Claims 3, 10, 11, 15, 18, 24, and 28 stand rejected under 35 U.S.C. § 103. Claims 20 and 25 are not properly addressed in the Office Action dated June 23, 2006. Claims 4, 13 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Applicant thanks the Examiner for the indication of allowability for claims 4, 13 and 19. Applicant hereby traverses the outstanding rejections and requests reconsideration and withdrawal in light of the remarks contained herein.

### **II. Claims 20 and 25 Are Not Properly Addressed in the Office Action**

Claim 20 is indicated as being rejected on the Office Action Summary page, but is not included in either the 35 U.S.C. § 102 or 35 U.S.C. § 103 rejections. Since no basis for any rejection is provided in the Office Action, Applicant is unable to address any rejection that may have been intended.

Applicant interprets the lack of a rejection as an indication that claim 20 is allowable. Accordingly, Applicant requests confirmation of the allowability of claim 20.

Claim 25 is indicated as being rejected on the Office Action Summary page, but is not included in either the list of claims rejected under either 35 U.S.C. § 102 or 35 U.S.C. § 103. Applicant notes that in the body of the 35 U.S.C. § 102 rejection, claim 25 is indicated as being rejected for reasons similar to those of independent claims 1 and 16. However, claim 25 recites claim limitations not mentioned in the rejection details for claim 1. And while claim 16 is specifically described as having limitations similar to those of claim 1, no such statement is made regarding claim 25. Since no basis for any rejection is provided in the Office Action, Applicant is unable to address any rejection that may have been intended

Therefore Applicant believes that the inclusion of claim 25 in the rejection of claim 1 is a typographical error, and than claim 25 has not been properly addressed. Accordingly, Applicant requests clarification of the status of claim 25.

### **III. Rejections under 35 U.S.C. § 102**

Claims 1, 2, 5-9, 12, 14, 16, 17, 21-23, 26 and 27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,205,159 to Sesko et al. ("Sesko"). Applicant traverses these rejections as provided below.

It is well settled that to anticipate a claim, the reference must teach every element of the claim. M.P.E.P. § 2131. Moreover, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he elements must be arranged as required by the claim." M.P.E.P. § 2131, citing *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Furthermore, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." M.P.E.P. § 2131, citing *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989). Applicant respectfully asserts that the rejections do not satisfy these requirements.

#### **A. Independent Claims**

Independent claim 1 recites "a dispersing element operable to disperse a light beam at a wavelength-dependent angle ...." Sesko does not disclose at least this element of the claim. That is, Sesko does not disclose a dispersing element that is operable to disperse a light beam at a wavelength-dependent angle.

The Office Action points to Figure 2A, elements 3, 4 and 12, and cites column 11, lines 35-67 of Sesko. However, the cited elements and passage do not disclose dispersing a light beam at a wavelength-dependent angle. Rather, Figure 2A and the cited passage clearly teach that the path of the light stays along the longitudinal axis of region E. Elements 3 and 12 perform filtering and phase adjustment, neither of which is dispersing as required by the claim.

While element 4 of Figure 2A is shown to be at an angle with respect to the path of the light, element 4 is not a dispersive element. Rather, the angle is for tuning, and is consistent with respect to the light path for all wavelengths. Sesko, col. 12, lines 38-41. since none of the cited elements disperse a light beam at a wavelength-dependent angle, Sesko does not teach a dispersing element, as required by the claim.

Therefore, Sesko does not disclose all the limitations of claim 1. Accordingly, Applicant asserts that claim 1 is patentable for, at least, the reason set forth above, and requests withdrawal of the U.S.C. § 102(b) rejection of claim 1.

Independent claim 16 recites “dispersing said light beam at a wavelength-dependent angle ....” Sesko does not disclose at least this element of the claim. That is, Sesko does not disclose a dispersing a light beam at a wavelength-dependent angle.

The Office Action points to Figure 2A, elements 3, 4 and 12, and cites column 11, lines 35-67 of Sesko. However, the cited elements and passage to not disclose dispersing a light beam at a wavelength-dependent angle. Rather, Figure 2A and the cited passage clearly teach that the path of the light stays along the longitudinal axis of region E. Elements 3 and 12 perform filtering and phase adjustment, neither of which is dispersing as required by the claim.

While element 4 of Figure 2A is shown to be at an angle with respect to the path of the light, element 4 is not a dispersive element. Rather, the angle is for tuning, and is consistent with respect to the light path for all wavelengths. Sesko, col. 12, lines 38-41. since none of the cited elements disperse a light beam at a wavelength-dependent angle, Sesko does not teach dispersing as required by the claim.

Therefore, Sesko does not disclose all the limitations of claim 16. Accordingly, Applicant asserts that claim 16 is patentable for, at least, the reason set forth above, and requests withdrawal of the U.S.C. § 102(b) rejection of claim 16.

B. Dependent Claims

Claims 2, 5-9, 12, 14, 17, 21-23, 26 and 27 depend from a respective one of base claims 1 and 16, and thus inherit all the limitations of their respective base claim. Claims 2, 5-9, 12, 14, 17, 21-23, 26 and 27, therefore, set forth features and limitations not disclosed by Sesko. Applicant asserts that these dependent claims are patentable for, at least, the reasons set forth above with respect to claims 1 and 16. Accordingly, Applicant requests the Examiner withdraw the U.S.C. § 102(b) rejections of claims 2, 5-9, 12, 14, 17, 21-23, 24, 26 and 27. Moreover, these dependent claims set forth features and limitations not found in the cited art.

For example, claim 7 recites “said variable index electro-optic element comprises a layered structure, wherein a layer of liquid crystal material is disposed between layers of dielectric material.” The Office Action points to Figure 1 of Sesko, alleging that Figure 1 and the related discussion meet the limitations of claim 7. Applicant notes that claim 7 depends from base claim 1, thus inheriting all the limitations of claim 1.

Applicant further notes that Figure 2A, cited against claim 1, and Figure 1, cited against claim 7, operate on different principles, and that Sesko’s invention, disclosed in Figure 2A specifically avoids the use of the arrangement shown in Figure 1. The attempt to meet the limitations of claim 7 by supplementing the teachings of Figure 2A with the device shown in Figure 1 is improper, because the elements must be arranged as required by the claim in order to maintain a U.S.C. § 102(b) rejection.

Claim 8 recites “an optical feedback element ....” Sesko does not disclose an optical feedback element as required by the claim. The Office Action points to elements 9 and 10 in Figure 2A of Sesko. However, element 10 is a servo motor that induces mechanical motion of element 12. Sesko, col. 13, lines 59-65. That is, Sisko teaches mechanical, not optical feedback.

Claim 9 recites “said ECL is operable to tune said tunable wavelength by changing the effective optical path length in said variable index electro-optic element, dependent on said value of said applied control voltage, such that the mode number of said light beam generated in said ECL is electrically tuned.” As with claim 7, The Office Action is

attempting to combine two devices with notably different principles of operation to meet the limitations of a single claim, in contravention of M.P.E.P. § 2131.

Claim 21 recites both “a dispersing element” and “an optical feedback element,” neither of which is disclosed by Sesko. See the arguments for claims 1 and 8 above.

#### **IV. Rejections under 35 U.S.C. § 103**

Claims 3, 10, 11, 15, 18, 24 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sesko. Applicant traverses these rejections as provided below.

In order to establish obviousness under 35 U.S.C. § 103(a), three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the references or combine reference teachings. Second, there must be a reasonable expectation of success. Third, the applied art must teach or suggest all the claim limitations. M.P.E.P. § 2143.03. Applicant asserts that the rejections do not satisfy these criteria.

Claims 3, 10, 11, 15, 18, 24 and 28 depend from a respective one of base claims 1 and 16, and thus inherit all the limitations of their respective base claim. Claims 3, 10, 11, 15, 18, 24 and 28, therefore, set forth features and limitations not taught or suggested by Sesko. Applicant asserts that these dependent claims are patentable for, at least, the reasons set forth above with respect to claims 1 and 16. Accordingly, Applicant requests the Examiner withdraw the U.S.C. § 103(a) rejections of claims 3, 10, 11, 15, 18, 24 and 28. Moreover, these dependent claims set forth features and limitations not taught or suggested by the cited art.

For example, claim 3 recites “said variable index electro-optic element is operable to perform said wavelength selective filtering by varying the critical angle for total internal optical reflection (TIR) at an interface of said electro-optic element ....” The Office Action admits that Sesko does not teach varying the critical angle for TIR, and points to the discussion of Figure 1, which discloses varying optical length. Applicant notes that Figure 1 of Sesko clearly teaches normal incidence of light waves, which is not “filtering by varying a

critical angle," as required by the claim. Sesko does not mention critical angles, varying critical angles, or filtering by using critical angles, and therefore cannot teach or suggest wavelength selective filtering by varying the critical angle for TIR. Similarly, claims 11 and 24 also teach varying the critical angle for TIR.

Claim 28 recites "transforming the beam divergence of said emitted light beam from a low divergence value to a higher divergence value prior to said collimating." The Office Action, essentially admitting that Sesko does not disclose "transforming the beam divergence," appears to be arbitrarily ignoring the patentable weight of that aspect of the claim. The Office Action makes an allegation regarding Sisko disclosing the general conditions, however, Sisko discloses no transformation of beam divergence prior to collimating. Rather, Figures 2A-2F of Sisko clearly show collimating the beam by lenses 2A or 2B immediately, and without transforming the beam divergence.

## V. Conclusion

In view of the above, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-1078, under Order No. 10021105-1 from which the undersigned is authorized to draw.

Dated: September 15, 2006

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being electronically filed and addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

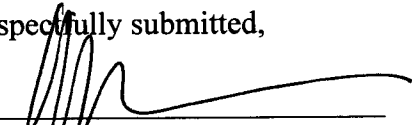
Dated: September 15, 2006

Signature:

Lorraine Davidoff

Respectfully submitted,

By

  
Michael A. Papalas  
Registration No.: 40,381  
(214) 855-8186  
Attorney for Applicant